

Micro-Combined Heat and Power Systems (Micro-CHP)

- Micro-CHPs use natural gas to meet a home's power and heating needs.
- Micro-CHPs fueled by natural gas provide higher efficiency and lower emissions than conventional heating and grid-supplied power.
- Micro-CHPs provide a constant and convenient source of electricity and heat.



An Efficient and Environmentally Friendly Technology

Residential micro-CHPs use fuels such as natural gas to produce heat and electricity. The electricity can be used for any household device such as televisions and appliances. The heat produced can be used to heat your entire home, your household water, swimming pools, and spas.

Micro-CHP systems are extremely efficient, offering combined efficiency of up to 90%, compared to about 30 to 40% for electricity from a central power plant. The electric power produced by these systems displaces electricity generated by central power plants, reducing carbon emissions and conserving natural resources such as coal.

Meeting the Energy Demands of Any Size Home

Micro-CHP units range in capacity from about 1 kW to 6 kW. These systems can serve the heating and electricity demands of virtually any size home. Units can connect to utility power as backup or be stand-alone systems for remote residences.

Micro-CHP systems produce electricity at a very high efficiency when there is a demand for heating. Systems need to be properly sized for optimum efficiency. This is generally based on the amount of heat a home requires so that the unit runs the most possible hours in a year. If net metering is available (the utility pays the homeowner for electricity sent back into the grid), the systems can greatly reduce annual energy costs.

Payback varies with fuel and electricity costs, net metering availability, and the need for heat (e.g., a system heating a pool will provide useful heat and electricity year-round).

Advantages of micro-CHPs:

- Economically meets the power and heating needs of a home
- Provides backup power during grid outages
- Low-emission technology that reduces your carbon footprint
- Quiet operation
- Increases the value of a typical home by up to \$20,000*
- Energy efficient
- Operating cost savings in many climates
- Units are relatively small, approximately the size of a major appliance
- Low maintenance

*Source: National Appraiser's Institute



For more information, contact:

Energy Services Department
NY: esny@natfuel.com/800-343-4568
PA: espa@natfuel.com/800-551-5991